

**POTENTIAL FOR CONSOLIDATION OF THE MUSKEGON TOWNSHIP FIRE
DEPARTMENT WITH NEIGHBORING JURISDICTIONS**

EXECUTIVE DEVELOPMENT

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ABSTRACT

The problem in this applied research project was the duplication of services provided by the Muskegon Township Fire Department (MTFD) and neighboring jurisdictions in Muskegon County, Michigan.

The purpose was to examine the potential for consolidation of the MTFD and four of its neighbors with whom cooperative efforts including automatic mutual aid were already in place.

Descriptive research was used to answer the following questions:

1. What are the potential benefits of fire department consolidation?
2. What are the potential drawbacks of fire department consolidation?
3. What are the potential obstacles to implementing fire department consolidation?

The procedures included a review of literature on fire department consolidation as well as a survey of fire chiefs and municipal leaders in Muskegon Township, North Muskegon, Dalton Township, Egelston Township and Fruitport Township.

The literature was obtained from the Learning Resource Center at the National Fire Academy, the Michigan Townships Association, the National Fire Protection Association (NFPA), the Insurance Services Office (ISO) and feasibility studies on fire department consolidation studies in other Michigan communities.

The results of the project found that while consolidation does offer a means of providing better fire protection at a reduced cost, many of the same benefits can be achieved through other cooperative efforts. There are significant drawbacks to consolidation, including loss of local control and accountability and fire department identity with the community.

The recommendations of the project call for Muskegon Township and its neighbors to build on their cooperative efforts to provide fire protection. Because of these cooperative efforts, formal consolidation does not appear to be necessary.

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INTRODUCTION

The Muskegon Township Fire Department (MTFD) and the fire departments of nine neighboring municipalities in Muskegon County, Michigan provide nearly identical fire, rescue, medical first response and hazardous materials first response services.

The problem is that the provision of these services by separate municipalities in a common geographical area can result in a duplication of effort and expense in at least some functions of each fire department.

Since 1997, the MTFD has entered into automatic mutual aid agreements with the fire departments of four neighboring municipalities: the City of North Muskegon, Dalton Township, Egelston Township and Fruitport Township.

All alarms for structure fires in the MTFD's protection area trigger the automatic response of both MTFD stations and one of these four fire departments. Likewise, the MTFD responds automatically to assist these four fire departments on alarms for structure fires in predetermined areas of their jurisdictions.

Egelston Township and Fruitport Township also have an automatic mutual aid agreement with each other.

For all intents and purposes, automatic mutual aid has resulted in a functional merger between the MTFD and the North Muskegon, Dalton Township, Egelston Township and Fruitport Township fire departments to fight structure fires.

The purpose of this applied research project is to examine the potential for formal consolidation of the MTFD with these four fire departments.

Descriptive research was used to answer the following questions:

1. What are the potential benefits of fire department consolidation?
2. What are the potential drawbacks of fire department consolidation?
3. What are the potential obstacles to implementing fire department consolidation?

BACKGROUND AND SIGNIFICANCE

The MTFD serves a population of 22,000 in a 52-square-mile area of Muskegon County that includes Muskegon Township, Laketon Township and a portion of Cedar Creek Township. The MTFD operates two fire stations with a full-time staff of 11 employees, including the Fire Chief, and 27 paid-on-call personnel. In 1998, the MTFD answered 1,723 alarms. (Muskegon Township Fire Department, 1998)

The MTFD's protection area borders the jurisdictions of nine other departments: the cities of Muskegon, Muskegon Heights, North Muskegon and Norton Shores; the townships of Dalton, Egelston, Fruitport and Holton; and the White Lake Fire Authority.

The MTFD began automatic mutual aid with North Muskegon and Dalton Township in 1997, and with Egelston Township and Fruitport Township in 1998.

Although the MTFD and these four neighboring departments are run by separate municipal governments, they operate at structure fires more like one fire department with multiple stations. Command and control at fire scenes is maintained through the use of the Incident Command System.

North Muskegon, Dalton Township, Egelston Township and Fruitport Township all have fire stations in locations that enable them to respond to fire scenes in the MTFD's protection area in less time than it takes the MTFD to deploy a full first-alarm assignment from both of its stations. In some cases, automatic aid apparatus is on the scene before the first MTFD unit.

Likewise, the location of MTFD stations enables the rapid response of apparatus and personnel into portions of North Muskegon, Dalton Township, Egelston Township and Fruitport Township. There are times when MTFD apparatus is first on the scene of a fire in these jurisdictions.

In 1998, the MTFD responded to 44 structure fires in its protection area and 39 structure fires in automatic mutual aid jurisdictions (Muskegon Township Fire Department, 1998).

The MTFD also has mutual aid agreements with Muskegon, Muskegon Heights, Norton Shores; Holton Township and the White Lake Fire Authority. However, these agreements are limited to specific buildings, isolated areas and major fires.

In 1998, the MTFD further expanded its automatic mutual aid agreement with North Muskegon to better provide fire and rescue service to part of Laketon Township.

Although Muskegon Township has a contract to provide fire and rescue service to all of Laketon Township, North Muskegon's fire station is closer to the southernmost portion of Laketon Township than the nearest MTFD station.

Through a sub-contractual arrangement, North Muskegon now handles all fire and rescue incidents in the southernmost portion of Laketon Township that require only a limited response such as medical emergencies, vehicle fires and investigations. The MTFD and North Muskegon continue to respond together on the first alarm for structure fires in this area as well as motor vehicle accidents with entrapment.

The benefits of automatic mutual aid are reflected in the MTFD's 1998 *Annual Report*. The average first-alarm staffing for structure fires in the MTFD's protection area increased from 10.28 in 1996 to 14.75 in 1998. The average staffing includes personnel on the scene as well as personnel who stand by in both stations. During the same period of time, the MTFD's Insurance Services Office (ISO) rating improved from a Class 9/8 to a Class 6 with an estimated annual savings of \$500,000 in property insurance premiums. Furthermore, portions of the MTFD's protection area that are more than five miles from an MTFD fire station improved from an ISO Class 10 (Unprotected) to a Class 6 because of the proximity of automatic mutual aid stations.

Yet, despite an improved level of service as a result of automatic mutual aid between the MTFD, North Muskegon, Dalton Township, Egelston Township and Fruitport Township, some duplication of effort and expense remains. At the very least, there are still five government bodies that oversee a fire department, five fire chiefs, five budget processes and five separate efforts to purchase and maintain equipment.

During recent years, the MTFD and other Muskegon County Fire Departments have engaged in joint purchasing of some equipment such as self-contained breathing apparatus and protective clothing to reap the cost savings of large orders.

Still, these joint purchasing efforts have been sporadic. For the most part, Muskegon Township, North Muskegon, Dalton Township, Egelston Township and Fruitport Township all purchase the fire equipment each jurisdiction needs when they need it as do other Muskegon County fire departments, and as a result, bear the increased cost of small orders.

The same limited cooperative approach to purchasing also can be found in grant acquisition, fund raising and equipment specifications. In 1998, eight Muskegon County fire departments including the MTFD conducted a joint effort to obtain a grant and donations for the purchase of identical thermal imaging cameras for each of the participating jurisdictions. Although very successful, this effort has not since been repeated.

While the thermal imaging cameras and other equipment used by the MTFD and its neighbors are the same, there are still some significant differences. The MTFD, North Muskegon, Dalton Township and Egelston Township all use National Standard Thread on their fire hose, while Fruitport Township uses Big Six Thread. North Muskegon uses a different hydrant thread and larger hydrant fittings than the other four departments. Among the five departments, there are two different sizes of hose for water supply, three different brands of self-contained breathing apparatus, five different ways of loading hose on apparatus and five different sets of locations for equipment on apparatus.

Unit 7 of the Executive Fire Officer Program's Executive Development course covers organizational culture. It is clear that the different organizational cultures of the MTFD, the nine neighboring fire departments and the municipal governments that govern them are a key reason that fire protection remains fragmented.

However, similarities in organizational culture do exist within the MTFD and the fire departments of North Muskegon , Dalton Township, Egelston Township and Fruitport Township.

The primary similarity in organizational culture within these five departments is that all five utilize a combination of full-time employees and paid-on-call personnel.

The combined use of both full-time and paid-on-call firefighters is markedly different than the organization of the Muskegon and Muskegon Heights fire departments, which are staffed solely by unionized, full-time employees. Combination departments also are different than other fire departments in Muskegon County that rely entirely on on-call personnel or volunteers.

Another similarity in organizational culture between the MTFD and the fire departments in North Muskegon, Dalton Township, Egelston Township and Fruitport Township is that all five departments serve a mixed suburban-rural area.

On the other hand, Muskegon and Muskegon Heights are urban cities, Norton Shores is a suburban city and the rest of Muskegon County's municipalities are small towns and rural areas.

Given the similarities in the organizational cultures within the MTFD and the fire departments in North Muskegon, Dalton Township, Egelston Township and Fruitport Township, it is the intent of this applied research paper to examine the opinions of the leadership of these departments regarding consolidation. In addition, information has been gathered from other jurisdictions across Michigan and the United States.

LITERATURE REVIEW

This applied research project reviewed a range of documents: fire service and government trade publications, other applied research projects on file at the National Fire Academy's Learning Resource Center, the local newspaper, a private sector trade publication and consolidation feasibility studies in other Michigan communities.

In 1997, Jeffrey D. Johnson and Jack W. Snook wrote a definitive book on fire department consolidations and mergers entitled *Making the Pieces Fit*.

The Fire Department, for all practical purposes, sells only one product: service. As public servants, we must continually seek out ways to supply a high-quality product at either the same cost or reduced cost. We owe it to our customers. The formation of strategic alliances between fire departments is not only a way to cope with the current environment, but is also a way to provide an efficient and effective means to deliver service quicker, better and possibly even cheaper. Those individuals who can look past personal agendas, comfort zones and internal or external pressures will ultimately adopt solutions that not only address, but also guarantee that the needs of the citizens served are met. (p. 2)

Johnson and Snook cover a wide range of perspectives on fire department consolidation, and thoroughly examine why some consolidation efforts fail and why some succeed.

Making the Pieces Fit provides an excellent starting point from which to find the answers to the three research questions in this applied research paper.

Snook was involved in the merger of the two largest fire districts in Oregon into Tualatin Valley Fire and Rescue in 1989 (p. 34). Upon his retirement as Tualatin Valley's chief in 1995, Snook was succeeded by Johnson. The pair based their book on their experiences with Tualatin Valley as well as research into other consolidation efforts across the United States (p. 1.)

Making the Pieces Fit includes 18 case studies of fire department consolidations. However, as none of the case studies in the book are from Michigan, and only two are from the Midwest (both in Illinois), this applied research project also turns to other sources to gain perspectives on consolidation closer to Muskegon Township.

On January 25, 1987, *The Muskegon Chronicle* printed a lengthy article on an ultimately unsuccessful plan to create a consolidated fire department in northwest Muskegon County.

The plan called for the merger of two existing fire departments to protect six municipalities: the cities of Whitehall and Montague, and the townships of Whitehall, Montague, White River and Fruitland.

Although it is now more than 12 years old, the article in *The Muskegon Chronicle* includes opinions from government officials who supported consolidation as well as those who opposed the plan. These opinions are quite similar to those found in more current literature reviewed for this applied research project.

In 1993, Fire Chief Tyrone Jarrett of Royal Oak Township Fire-Rescue in Ferndale, Michigan, completed an applied research project, *A comparative Study of the Attitudes and Opinions Regarding Regionalization of Fire Service Resources in Metropolitan Detroit*, as part of the Executive Fire Officer Program.

Jarrett looks at both advantages and obstacles to fire department consolidation, as well as how best to address regionalization (p. 1).

One similarity between most of the fire departments in Jarrett's study and the five Muskegon County fire departments considered for this applied research project is the size of the departments.

In Jarrett's study, "most departments that would be affected in regionalization had only one or two fire stations" (p. 1). The MCTFD and Fruitport Township both operate two fire stations, while North Muskegon, Dalton Township and Egelston Township each operate one station.

In 1994, Fire Chief Edgar McArthur of the Harrison Township Fire Department in Mount Clemens, Michigan completed an applied research project, *The Metro Macomb Fire District Project: What Can Regional Consolidation Make Possible*, as part of the Executive Fire Officer Program.

As is the case with the MCTFD and the four other departments in this applied research project, McArthur's paper notes that the fire departments most interested in consolidation with Harrison Township are those with similar characteristics. (p. 7).

McArthur states, "They are all medium sized municipalities with populations ranging from 8,000 to 60,000. They are all suburban communities with largely middle class populations" (p. 7).

Jarrett (p. 6) and McArthur (p. 8) both refer to Tualatin Valley as a benchmark for fire department consolidation.

In a 1993 publication by the Michigan Townships Association, *On-Call Fire Departments: The Township Board's Responsibilities*, author G. Lawrence Merrill specifically covers contracts and mergers (pp. 65-73) as well as related issues.

In his effort to assist township government with fire department management, Merrill's manual helps provide answers to the questions in this applied research project.

In 1995, the City of South Haven, Michigan and the neighboring municipalities of Casco Township, Geneva Township and South Haven Township hired David M. Griffith and Associates of West Palm Beach, Florida to study the feasibility of establishing an area-wide authority to provide fire and emergency medical services. The final report by Griffith led to the creation of the South Haven Area Emergency Services Authority.

The approach and methodology has included a significant number of personal interviews and meetings with fire and ambulance management and staff, and discussions with fire and elected officials in each of the participating governments. A considerable amount of operational, legal, and financial data have been collected and reviewed during the development of recommendations. (p. 3)

At the time of the South Haven study, the City of South Haven Fire Department provided both fire and ambulance service to the city, South Haven Township and a portion of Geneva Township; and provided ambulance service to Casco Township, which had its own fire department. (p. 5)

In 1996, the City of Rockford, Michigan and neighboring Plainfield Township hired the Emergency Services Consulting Group of York, Pennsylvania to do a feasibility study on consolidation of their fire departments.

The result of the study was the creation of the Rockford-Plainfield Fire Department.

The introduction to the Rockford-Plainfield report states, "Many communities like yours have come to realize that the review of administrative and operational programs in the private sector is as essential as it is with private manufacturing or financial programs. Considering alternatives to the traditional approaches is a natural extension of good government" (p. 1).

This applied research project also obtained information from the private sector in the American Management Association's 1989 report, *The Effects of Mergers and Acquisitions*.

The primary purpose of the report was to address the effects of mergers on personnel; including uncertainty over employment status, difficulty in performing new tasks and lost productivity (p. 5).

The data collected...confirm much of anecdotal evidence that has been presented in recent years and shed some light on how the planning for mergers, acquisitions, consolidations, and divestitures might be changed in order to avoid many of the problems reported. Many of these problems would be avoidable if only more attention were paid up front to human resources issues and conflicting system architectures. (p. 6)

Much of the literature on fire department consolidation refers to fire protection ratings issued by the Insurance Services Office (ISO).

Johnson and Snook cite "a potentially reduced Insurance Services Office (ISO) rating" as one of the benefits of consolidation (p. 2), and Merrill notes that the fire service uses ISO "as a benchmark for the quality of fire protection provided" (p. 10).

This applied research project cites fire protection standards directly from ISO's *Fire Suppression Rating Schedule*, as well as the National Fire Protection Association (NFPA) *Fire Protection Handbook*. The project also refers to ISO's *Fire Protection Classification Manual* for comparative ratings of Muskegon Township, its neighbors and other Michigan communities. Statistical information on the MTFD is taken directly from the Department's 1998 *Annual Report*.

In summation, the literature reviewed for this applied research project shows that many communities across Michigan and the rest of the nation have grappled with the issue of fire department consolidation. The experiences of these communities can provide a tremendous source of information and insight as Muskegon Township examines the potential for consolidation with neighboring jurisdictions. The literature had a direct influence on this project because of the common questions, common problems and, quite often, common solutions found in other communities.

PROCEDURES

Literature for this applied research project was obtained from the National Fire Academy's Learning Resource Center, the Michigan Townships Association, *The Muskegon Chronicle* and the chiefs of consolidated fire departments in Rockford, Michigan and South Haven, Michigan.

In addition to reviewing literature on fire department consolidation, this project surveyed government officials and fire department officers from Muskegon Township, North Muskegon, Dalton Township, Egelston Township and Fruitport Township.

These municipalities were selected for the survey based on similarities in the organizational culture within their respective fire departments as described in the Background and Significance section of this paper.

A survey questionnaire sought answers to the three research questions in the project, and requested a written response. A copy of the survey questionnaire can be found in the Appendix.

The questionnaires were sent to nine officials, seven of whom responded: Muskegon Township Supervisor P. Don Aley, North Muskegon City Manager Dennis Stepke, North Muskegon Fire Marshal Steve Lague, Dalton Township Supervisor Rich Houtteman, Dalton Township Fire Chief Gary Furman, Egelston Township Fire Chief Larry Hruskach, and Fruitport Township Fire Chief Ken Doctor.

The limitations of the project were that not all nine of the officials who were sent questionnaires responded to the survey. The goal was to elicit opinions from both fire and government officials. No response from a government official was received from either Egelston Township or Fruitport Township, although the fire chiefs of both jurisdictions responded.

Definition of Terms

Automatic mutual aid. A prearranged response of a fire department across jurisdictional boundaries to assist a neighboring department without having to be requested for help on an incident-by-incident basis. (See Mutual aid.)

First-alarm assignment. A predetermined response of fire apparatus and personnel to the initial report of a fire or other emergency incident.

Incident Command System. A standardized means of managing emergency incidents, supervising personnel and ensuring safety promulgated by the National Fire Academy and the International Fire Service Training Association.

Ladder truck. Fire apparatus equipped with a hydraulically-powered ladder or elevated platform that have extended lengths ranging from 50 to more than 100 feet.

Mutual aid. An agreement between fire departments to provide assistance as requested on an incident-by-incident basis. (See Automatic mutual aid.)

Pumper. Fire apparatus equipped with a water tank, pump and hose.

Structure fire. Any fire involving a building or the contents of a building.

Tanker. Fire apparatus designed to haul water, ranging from 1,500 gallons to more than 5,000 gallons, to fires in areas without fire hydrants.

RESULTS

What are the Potential Benefits of Fire Department Consolidation?

In both the literature review and surveys, cost savings are frequently mentioned as a potential benefit of fire department consolidation.

Fiscal considerations have historically been, and continue to be, one of the primary motivations for exploring some type of cooperative effort. As Rick Tye, Fire Chief of the Menlo Park Fire Protection District, California, succinctly illustrates: 'Financial necessity is the mother of all innovation.' Often, particularly over the last decade, voter-approved tax caps are at the root of that innovation. (Johnson and Snook, 1997, p. 9)

Of the seven local officials who completed the surveys for this project, six stated that they believe cost savings would be a benefit of consolidation.

The means of cost savings most frequently expressed in the surveys was increased purchasing power and less duplication of apparatus and equipment.

Yet, while the cost-effectiveness of fire department consolidation is touted by some, it also is questioned by others.

The *Muskegon Chronicle* (1987, January 25) quoted Montague Township Supervisor Roger Simon as saying, "We felt we couldn't see any way possible the system could get bigger and have a full-time chief, and we'd have any better or cheaper service" (p. B1).

According to the American Management Association report (1989), the largest savings as a result of private sector consolidations and mergers are most often from reductions in the size of the work force.

However, in the fire service literature reviewed for this project, the need for more personnel at emergency incidents is often cited as a reason for consolidation.

Jarrett (1994) states that 87 percent of the fire chiefs in Southeastern Michigan polled for his applied research project gave "improve manpower" as a reason for consolidation (p. 11).

McArthur (1993) states that the fire departments in his study "all operate at manpower levels that are below the recommended manning level rule of, 'one firefighter per thousand'" (p. 13).

Merrill (1993) warns that while consolidation does result in shared expenses among participating jurisdictions, a consolidated fire department still must be able to adequately protect the entire protection district.

Local governments that participate in or are considering a multi-unit fire authority should recognize that, while the per-capita fire protection cost drops as the fixed costs are spread over a larger geographic area, a fire station's effective response time is absolutely fixed. A fire department must be capable of routinely arriving at a fire scene within 15 minutes for the property owners to consider they have some degree of effective fire protection. A multi-unit fire department responsible for responding to more than one township will result in some remote areas having fire protection in name only. A single fire station cannot effectively protect 72 square miles (p. 67).

The Insurance Services Office (1980) calls for fire stations to be located within at least five road miles of all structures in a protection area.

In his answer to the question of potential benefits in the survey for this project, Fruitport Township Fire Chief Ken Doctor states that a benefit of consolidation would be a guaranteed response of the nearest available unit to an emergency incident.

In his survey response, Egelston Township Fire Chief Larry Hruskach states, "One would think it would be advantageous to all departments if you could put the proper equipment in the most useful places. The buying power for that equipment would also be greater. The manpower problems could almost be solved."

In his survey response, North Muskegon Fire Marshal Steve Lague states that he believes "quicker response time" would be a benefit of consolidation.

Griffith (1995) advised South Haven communities that deployment of fire apparatus and personnel to cover a broader geographic region has many advantages over the protection provided by a small municipality.

The deployment of a fire department's resources should be in relation to the needs of an area (or district) being protected, e.g. those stations serving areas without fire hydrants should have water tenders (tankers) responding to structure fires to provide water supply. However, it may not be necessary to have a particular resource deployed if that function can be accomplished in a reasonable time period by the response of a like resource from a neighboring station, e.g. in the case of a district without fire hydrants, the water tender may be housed in a neighboring station and dispatched to that area on every structure fire alarm.

In this way it is possible for larger fire departments to make more efficient use of resources by deploying them in a manner which will serve a broader area, e.g. in urban fire departments, ladder trucks are usually found in only 30 to 50% of the stations but respond with the pumpers in adjoining districts to provide their special capability.

In like fashion personnel are deployed to meet the needs of not only the immediate area served but the entire area protected by the Department. Even large urban fire departments do not have sufficient on-duty staffing in every station to meet the needs of a well-involved structure fire, and for that reason two or more stations are usually dispatched. (p. 4)

The remaining answers to the question of potential benefits of consolidation as found in the literature and the surveys were improved ISO ratings, shared services such as fire inspections and prevention programs and joint training.

What are the Potential Drawbacks of Fire Department Consolidation?

_____ While increased staffing at emergency incidents and better deployment of apparatus is cited as a potential benefit of consolidation, there are also those who fear that consolidation can result in closing fire stations and reducing the level of service.

The Emergency Services Group (1996) notes in the Rockford-Plainfield study that "Response has been a high profile issue with the people from Rockford. There is a justifiable concern that their participation in a consolidated fire department could create a delayed response for calls within the city." (p. 4)

In his response to the question of potential drawbacks in the survey for this project, Dalton Township Supervisor Rich Houtteman cited a "lack of public control over local fire issues due to an independent fire board."

In his survey response, Muskegon Township Supervisor P. Don Aley notes that fire department personnel may be displaced due to consolidation, and "some fire stations could be in inappropriate locations."

In their survey responses, Fruitport Township Fire Chief Ken Doctor states that consolidation could lead to the "loss of idea sharing and the different techniques of our business", while North Muskegon Fire Marshal Steve Lague regrets a possible break in the traditions of local community fire departments.

In his survey response, North Muskegon City Manager Dennis Stepke cites the problem of resolving existing debts on buildings and equipment as a potential drawback.

In his survey response, Dalton Township Fire Chief Gary Furman said potential drawbacks of consolidation include a fire protection district growing too large, and the reaction of taxpayers to the movement of fire equipment out of their municipality.

What are the Potential Obstacles to Implementing Fire Department

Consolidation?

____ Johnson and Snook (1997) state, "Not all consolidations and mergers have a happy ending. Not all of them even have a beginning. Obstacles can enter the picture at any juncture and at any level" (p. 89).

Among the obstacles to consolidation cited by Johnson and Snook are a lack of a clearly stated vision (p. 89), poor communications and leaving key officials out of the decision making process (p. 90), poor staff work and a lack of help from financial and legal experts (p. 91), hidden agendas (p. 92), and a lack of direction for employees who may be lost in the shuffle (p. 93).

Throughout this book we've repeatedly mentioned the "big four" -- turf, politics, power and control. They are real, tangible and visible and they are the cause of most cooperative effort failed attempts. If you fail to recognize and overcome those obstacles, they could potentially lead to your inability to successfully consolidate efforts as well. (p. 97)

Dalton Township Supervisor Richard Houtteman's answer to the survey question of consolidation obstacles is "taking the local names off of trucks and stations" and the "possible loss of jobs for current chiefs and firefighters".

Other responses to this survey question were "overcoming past political feelings", proving to the chiefs of individual fire departments the need "to give up the sole power they have had forever" and determining the funds needed for a fire district.

DISCUSSION

Consolidation has been a buzz word of the 1990s for the fire service, and will likely remain a key issue for many municipalities and their fire departments as we head into the next century.

Yet, an equally popular axiom for progressive fire departments in the 1990s has been the importance of customer service.

Johnson and Snook (1997) and Merrill (1993) both stress the critical importance of service. McArthur (1993) and Jarrett (1994) both found service delivery to be a critical consideration in their applied research projects on consolidation. Griffith (1995) and the Emergency Services Group (1996) both devote much of their feasibility studies in South Haven, Michigan and Rockford, Michigan, respectively, to the optimum use of fire stations, apparatus and personnel based on service delivery.

Many of the responses to the survey for this project cite improved service as a potential benefit of fire department consolidation; including better response times, better ISO ratings and the response of the nearest available fire unit to an emergency incident.

However, in the case of Muskegon Township, North Muskegon, Dalton Township, Egelston Township and Fruitport Township, the quality of fire service already has been enhanced through automatic mutual aid.

According to ISO (1999), Muskegon Township, Dalton Township, Egelston Township and Fruitport Township are four of only 14 fire departments in the State of Michigan with a rating better than a Class 9 in areas without fire hydrants. Muskegon Township (Class 6) and Fruitport Township (Class 5) are among only four fire departments in the state with a rating of Class 6 or better in non-hydrant areas.

These ratings were earned by the MTFD and its neighbors in 1997 and 1998 through increased staffing on all structure fires and a tanker task force for rural water supply, both made possible through mutual aid.

The MTFD's average staffing level at structure fires of 14 firefighters on the first alarm exceeds the NFPA's recommended minimum of 12 firefighters and a chief officer for residential fires and is just shy of the recommended minimum of 16 firefighters and a chief officer for commercial fires. The staffing standards can be found on page 10-41 of the *Fire Protection Handbook*.

Likewise, the MTFD meets the NFPA's recommended first-alarm deployment of at least two engines and a ladder truck at residential fires and at least three engines and a ladder truck at commercial fires. One of the first-alarm engines responds automatically from either North Muskegon, Dalton Township, Egelston Township or Fruitport Township. Apparatus deployment standards also can be found on page 10-41 of the *Fire Protection Handbook*.

The fire stations in Muskegon Township, North Muskegon and Fruitport Township are adequately spaced to enable average response times of less than five minutes within their communities. Automatic mutual aid has brought all of Laketon Township, Dalton Township, Egelston Township and portions of Cedar Creek Township within five miles of a responding fire station, although the average response times to parts of these jurisdictions are somewhat higher than five minutes.

Given the performance of the MTFD and its automatic mutual aid partners in responding to fires, there is no apparent need for consolidation based on service delivery alone.

Costs savings for the MTFD and its neighbors also can be achieved through cooperative purchasing efforts without formal consolidation.

Duplication of apparatus purchases can be reduced because of the availability of automatic aid engines, ladder trucks and tankers. This is consistent with the report of Griffith (1995) in the South Haven study that notes a multi-station response on structure fires enables resources to be spread out over a larger geographical area. (p. 4).

In 1998, Muskegon Township was faced with the need to purchase a new tanker to replace a 24-year-old vehicle housed in Fire Station Two that had deteriorated beyond repair and been taken out of service. The replacement options were a 2,000-gallon tanker on a single rear axle chassis at a cost of \$95,000 or a 3,000-gallon tanker on a tandem rear axle chassis at a cost of \$150,000.

Because of the automatic response of Dalton Township's 1,500-gallon pumper-tanker to structure fires in Station Two's coverage area as well as the availability of a 2,000-gallon tanker from Dalton Township on second alarm, Muskegon Township was able to buy the smaller tanker and save \$55,000.

Furthermore, while the new tanker was being built, Egelston Township placed one of its two tankers at MTFD Station One to enable Muskegon Township to relocate the tanker normally housed at Station One to Station Two. This ensured that a tanker continued to respond out of both MTFD stations until the new apparatus arrived.

With this type of cooperation, consolidation for the purpose of optimum apparatus acquisition and deployment does not appear to be necessary.

Without a consolidated fire department, however, the MTFD and its neighbors will have to make a concerted effort to routinely discuss apparatus and equipment needs and work out purchasing agreements.

Even if consolidation became a reality, neither the MTFD nor its neighbors would be able to close a fire station and provide an acceptable level of service. However, fire stations could be better located to provide more uniform coverage.

Once again, though, fire station location can be improved by each municipality without consolidation because of automatic mutual aid. For example, Egelston Township is studying the possibility of building a new fire station to replace its existing building due to age and a lack of space. Because Egelston Township's western border is within two miles of Muskegon Township Fire Station One, a new station can be located further to the east to enhance response times in that direction.

As was pointed out in much of the literature reviewed for this project, most fire departments struggle to deploy an adequate number of firefighters to suppress fires in a safe and effective manner. The MTFD and its neighbors have solved this problem through automatic mutual aid. There can be no staff reduction through consolidation without compromising safety and effectiveness.

Consolidation of the MTFD and its neighbors would allow the elimination of four fire chief positions. However, these positions would most likely have to be replaced with an equal number of personnel at a lower rank to handle the administrative duties that would still exist with seven fire stations and more than 100 firefighters in an area-wide department. Therefore, there would be a minimal savings in salaries.

Given what the MTFD and its neighbors have achieved without consolidation, the question becomes whether a merger is worth what would be lost, which is primarily local control and accountability as well as fire department identity with the community.

The fire department is often a focal point of a community, especially in a township of 36 square miles or less and a population of less than 20,000 residents as is the case with Muskegon Township and all of its neighbors.

"Among the public services offered by township governments, fire protection tends to gather the most public support," states Merrill (1993). "The fire department usually gets the lion's share of the township budget and occupies a majority of the board's time and attention" (p. 1).

The larger a consolidated fire district becomes, the greater the gap between department management and the people who pay for and receive fire protection.

In addition, in fire departments that rely extensively on the services of on-call personnel, organizational culture is a critical factor in attracting and retaining personnel. On-call firefighters enjoy the identity they have with their fire department. They take pride and ownership in the organization. The name on the side of the fire apparatus is who they are, what they belong to and why they are there.

The larger the organization, the greater the chance that personnel can become lost in the shuffle. And ultimately, fire department morale is a pivotal factor in service delivery.

Merrill states, "To attract and retain quality volunteers or paid on-call personnel, the township board must keep in mind the motivators that keep firefighters committed to the organization" (p. 55).

The MTFD and its neighbors are leaders in the Michigan fire service in terms of cooperation. The personnel in these fire departments, while maintaining an individual organizational identity, work extremely well with each other to provide excellent fire protection back and forth across jurisdictional borders.

As Fruitport Township Fire Chief Ken Doctor stated in his response to the survey in this project, each fire department develops its own techniques and answers to common fire protection problems. Through cooperation and communication between neighboring departments, ideas and techniques are shared and everyone benefits. Chief Doctor fears the "loss of idea sharing" if the individual identity of local fire departments should be replaced with a single consolidated fire district.

Consolidation has its advantages, but the MTFD and its neighbors may not need to take this step because of the level of quality service they already provide through their cooperative efforts.

In summation, the drawbacks and obstacles of consolidation between the MTFD and its neighbors may outweigh the benefits -- especially since most of the benefits can be achieved through other means.

RECOMMENDATIONS

Muskegon Township, North Muskegon, Dalton Township, Egelston Township and Fruitport Township should continue to build on their current cooperative efforts to provide fire protection regardless of jurisdictional boundaries.

This approach can reap virtually all of the benefits of consolidation found in the first research question, without the drawbacks found in the second research question and avoidance of the obstacles found in the third research question.

One major step in interdepartmental cooperation without formal consolidation can be made in the deployment of ladder trucks.

ISO (1980) recommends the deployment of a ladder truck within five miles of all built-up areas of a jurisdiction. For Muskegon Township, which did not own a ladder truck until 1999, this would require the purchase of a ladder truck for both stations.

In 1999, Muskegon Township bought a 75-foot ladder truck at a cost of \$446,590. Due to the fact that the apparatus bay at MTFD Station Two is not large enough to house the new ladder truck, the apparatus was placed at MTFD Station One.

Also in 1999, however, Fruitport Township acquired a used ladder truck, which was rehabilitated and placed in service at Fruitport Township Station Two. Fruitport Township Station Two is less than four miles from MTFD Station One.

As a result of the acquisition and deployment of this apparatus, there are now a pair of ladder trucks in close proximity in southern Muskegon Township and northern Fruitport Township. Yet, there is still no ladder truck within five miles of the built-up areas in northern Muskegon Township, Laketon Township, North Muskegon, Dalton Township and Cedar Creek Township.

Muskegon Township should consider increasing the size of the apparatus bay at MTFD Station Two to house its ladder truck, and rely on Fruitport Township to respond with its ladder truck on automatic mutual aid to Station One's coverage area. This move would meet ISO's ladder truck deployment standard in all of Muskegon Township, as well as Laketon Township, North Muskegon, Dalton Township and Cedar Creek Township. The move also would be several hundred thousand dollars less expensive for Muskegon Township than buying a second ladder truck.

If Muskegon Township were to move its ladder truck to Station Two, one of the two pumpers currently housed at Station Two would have to be relocated to Station One to make room. However, the presence of two pumpers in North Muskegon and two more in Dalton Township reduces the need for two pumpers in northern Muskegon Township.

Again, through interdepartmental cooperation, North Muskegon and Dalton Township would receive the first-alarm response of a MTFD ladder truck in exchange for providing a second pumper for structure fires in northern Muskegon Township.

Moreover, the relocation of the MTFD's ladder truck would not compromise automatic mutual aid coverage of Egelston Township because Fruitport Township Station Two and its ladder truck are also within five miles of most of Egelston's commercial and industrial structures.

Another significant means of cooperative cost savings between Muskegon Township and its neighbors is through the joint purchase of protective clothing, self-contained breathing apparatus and hose. All of these items have a limited service life.

Protective clothing generally lasts about five years, hose is usually good for 10 years and self-contained breathing apparatus air cylinders have a regulated service life of 15 years. The MTFD and its neighbors should set up a joint replacement schedule for these items so that every department buys the same equipment in the same year and realizes the costs savings associated with bulk purchasing.

As a follow-up to the findings in this project, Muskegon Township and Fruitport Township should attempt to foster increased cooperation with the City of Muskegon Fire Department. This would reduce response times to some areas of the City and Muskegon Township, and provide additional resources to all three jurisdictions. However, it is recognized that the organizational culture differences outlined in the Background and Significance section of this project are a formidable obstacle to expanded automatic mutual aid between the City and neighboring townships.

For future readers of this paper, it is recommended that any consideration of fire department consolidation be based largely, if not entirely, on service delivery.

While the concept of service delivery includes operating a fire department as economically as possible, this author does not recommend that jurisdictions reduce the quality of service just for the sake of spending less on fire protection. In the end, a reduction in the quality of fire protection may actually increase the amount of money spent by taxpayers through higher insurance premiums and will also result in greater risk to lives and property.

As a first step, and possibly the only step, toward consolidation, this author recommends that fire departments initiate cooperative efforts including automatic mutual aid. This is a feasible way to bridge differences in organizational culture and improve service delivery without compromising local control and fire department identity.

For the fire departments of Muskegon Township, North Muskegon, Dalton Township, Egelston Township and Fruitport Township, jurisdictional boundaries have largely become invisible without consolidation. Yet, local control and accountability remains as does fire department identity with the community.

For additional information on this project, contact Muskegon Township Fire Chief Mark Marentette at (231) 773-4316 or send correspondence to the Muskegon Township Fire Department; 1117 South Walker Road; Muskegon, MI 49442.

REFERENCES

- Aardema, Barb. (1987, January 25). Northern Fire Merger Plan Viewed With Enthusiasm, Caution. *The Muskegon Chronicle*, p. B1.
- American Management Association. (1989). *The Effects of Mergers and Acquisitions*. New York, NY: American Management Association.
- Emergency Services Consulting Group. (1996). *Consolidation Feasibility Study for the City of Rockford and the Plainfield Township Fire Department (Final Report)*. York, PA: Emergency Services Consulting Group.
- Griffith, David M. (1995). *Report on the Feasibility of Establishing an Authority for the Purpose of Providing Fire and EMS Services to the Residents of the South Haven Area-Wide Communities*. West Palm Beach, FL: David M. Griffith and Associates.
- Insurance Services Office. (1980). *Fire Suppression Rating Schedule*. New York, NY: Insurance Services Office.
- Insurance Services Office. (1999). *Public Protection Classification Manual (Michigan)*. New York, NY: Insurance Services Office.
- Jarrett, Tyrone. (1994). *A Comparative Study of the Attitudes and Opinions Regarding Regionalization of Fire Service Resources in Metropolitan Detroit*. Emmitsburg, MD: National Fire Academy.
- Johnson, Jeffrey D. & Snook, Jack W. (1997). *Making the Pieces Fit*. West Linn, OR: Emergency Services Consulting Group.
- McArthur, Edgar J. (1993). *The Metro Macomb Fire District Project: What Can Regional Consolidation Make Possible*. Emmitsburg, MD: National Fire Academy.
- Merrill, G. Lawrence. (1993). *On-Call Fire Departments: The Township Board's Responsibilities*. Lansing, MI: Michigan Townships Association.
- National Fire Protection Association. (1991). *Fire Protection Handbook (17th Edition)*. Quincy, MA: National Fire Protection Association.

APPENDIX

**TO: FIRE CHIEFS AND MUNICIPAL LEADERS OF THE CITY OF
NORTH MUSKEGON; AND THE TOWNSHIPS OF MUSKEGON,
DALTON, EGELSTON AND FRUITPORT**

**FROM: MARK MARENTETTE
MUSKEGON TOWNSHIP FIRE CHIEF**

DATE: JULY 6, 1999

SUBJECT: CONSOLIDATION SURVEY

At this time, I am working on an a research project as part of my enrollment in the National Fire Academy Executive Fire Officer Program. The topic of my research is the potential for consolidation of the Muskegon Township Fire Department with the fire departments of North Muskegon, Dalton Township, Egelston Township and Fruitport Township.

I would greatly appreciate if you could take the time to answer the following questions and return this form to me by August 3.

1. Your name_____
2. Your municipality and title_____
3. What do you believe would be the benefits, if any, of fire department consolidation in the Muskegon area?

4. What do you believe would be the drawbacks, if any, of fire department consolidation in the Muskegon area?

5. What do you believe would be the most difficult obstacles, if any, in implementing fire department consolidation in the Muskegon area?

